

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

REC'D 17 MAR 2005

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Applicant's or agent's file reference 0266	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IB 02/05445	International filing date (day/month/year) 18.12.2002	Priority date (day/month/year) 18.12.2002
International Patent Classification (IPC) or both national classification and IPC A23L3/3463		
Applicant COUNCIL OF SCIENTIFIC AND INDUSTRIAL RES..et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
  - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application

Date of submission of the demand  17.07.2004	Date of completion of this report  18.03.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Boddaert, P  Telephone No. +31 70 340-3471  

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/IB 02/05445

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-7 as originally filed

**Claims, Numbers**

1-4 received on 24.12.2004 with letter of 22.12.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
  - ☐ the language of publication of the international application (under Rule 48.3(b)).
  - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
  - ☐ filed together with the international application in computer readable form.
  - ☐ furnished subsequently to this Authority in written form.
  - ☐ furnished subsequently to this Authority in computer readable form.
  - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
  - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
4. The amendments have resulted in the cancellation of:
- ☐ the description, pages:
  - ☐ the claims, Nos.:
  - ☐ the drawings, sheets:
5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/B 02/05445

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-4
	No: Claims	
Inventive step (IS)	Yes: Claims	1-4
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-4
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/IB 02/05445

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Remark : The expression "in the range of 1:5 - 1:7" mentioned in claim 1 c could be clarified by indicating that the range refers to the ratio of leaves to solvent (cfr. basis in original claim 5).

Document D1 (WO-A-0232440), which is considered to represent the most relevant state of the art, discloses (p.4;p.6-12;claims) the use and the preparation of a natural antioxidant composition for food or pharmaceutical application. *Murraya koenigii* leaves are washed , dried , powdered , extracted with a polar solvent (f.i. ketonic solvents such as acetone) and evaporating the solvent ; from which the subject-matter of claim 1 differs in that the washed curry leaves are dried at a temperature in the range of 30°C - 80°C for a time between 2-10 hours and that the ratio of leaves to polar solvent in the extraction is between 1:5 - 1:7.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as the provision of a more efficient process (less time consuming , easier and more economical) for the preparation of a natural antioxidant comprising oleoresin from Indian curry leaves.

In D1 no hint is given that would solve the problem. Also none of the other prior art documents would lead the skilled person to the solution stated above.

Thus the subject-matter of claim 1 also involves an inventive step (Article 33(3) PCT).

Claims 2-4 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/IB 02/05445

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8

PCT/IB02/05445

**Claims**

1. A simple process for the preparation of safe, environmental friendly, and natural antioxidant conserve comprising oleoresin from Indian curry leaves (*Murraya Koenigii Spreng.*), said process comprising steps of:
  - a. drying the washed curry leaves at temperature in the range of 30-80°C, for time duration ranging between 2-10 hours.
  - b. powdering the dried leaves into coarse powder form,
  - c. extracting the powder with polar solvent preferably ketone with alkyl group in the range of 1:5-1:7.
  - d. obtaining antioxidant conserve comprising oleoresin from the extract by removing the solvent.
2. A process as claimed in claim 1, wherein the solvent is acetone and ethyl-methyl ketone.
3. A process as claimed inn claim 1, wherein removal of the solvent is at the temperature in the range of 10-40°C.
4. A process as claimed in claim 1, wherein the anti-oxidant activity of the extract is in the range of 80 to 85%.

EPO - DG 1

24.12.2004

(98)

AMENDED CLAIMS (CLEAR VERSION; ARTICLE 34)